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IDENTIFICATION OF OFF-FARM AGRICULTURAL OCCUPATIONS, PRESENT AND PROJECTED EMPLOYMENT, A PRELIMINARY REPORT OF THE DELAWARE STUDY OF AGRICULTURAL OCCUPATIONS OTHER THAN FARMING.

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THE OBJECTIVES OF THIS STUDY WERE TO (1) IDENTIFY PRESENT AND EMERGING AGRICULTURAL OCCUPATIONS OTHER THAN FARMING FOR WHICH VOCATIONAL AGRICULTURAL EDUCATION IS NEEDED AND (2) DETERMINE THE NUMBER OF PERSONS PRESENTLY EMPLOYED AND NEEDED IN THE FUTURE. BUSINESSES IN THE STATE IN WHICH EMPLOYEES WOULD FIND A KNOWLEDGE OF AGRICULTURE USEFUL OR NECESSARY WERE SELECTED AND STRATIFIED INTO 55 OCCUPATIONAL SUBFAMILIES ACCORDING TO THE TYPE OF BUSINESS AND GEOGRAPHICAL SUBDIVISION, THEN INTO EIGHT OCCUPATIONAL FAMILIES. THE DISPROPORTIONATE RANDOM SAMPLE METHOD WAS USED IN DRAWING THE SAMPLE. DATA WERE OBTAINED THROUGH INTERVIEWS WITH RESPONSIBLE PERSONS REPRESENTING 267 OF THE 2,053 BUSINESSES EMPLOYING 32,776 PERSONS. IT WAS ESTIMATED THAT 5,050 PERSONS WERE EMPLOYED WHO WOULD FIND THE KNOWLEDGE OF AGRICULTURE USEFUL OR NECESSARY IN THEIR OCCUPATION, AND THAT 2,154 ADDITIONAL AND REPLACEMENT EMPLOYEES WOULD BE NEEDED DURING THE NEXT 5 YEARS. TABLES EXPLAIN THE NEEDS OR LACK OF NEEDS OF VARIOUS OCCUPATIONAL FAMILIES. OF THE 5,050 PERSONS NEEDING AGRICULTURAL COMPETENCIES, 2,610 OR 51.7 PERCENT WERE EMPLOYED AT PROFESSIONAL, MANAGERIAL, AND SUPERVISORY LEVELS OF EMPLOYMENT. TO MEET EMPLOYMENT NEEDS, EACH OF DELAWARE'S 16 HIGH SCHOOLS WITH DEPARTMENTS OF VOCATIONAL AGRICULTURE SHOULD HAVE 34 GRADUATES EACH YEAR. (PA)

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IDENTIFICATION OF OFF-FARM AGRICULTURAL OCCUPATIONS

Present and Projected Employment

A Preliminary Report of the Delaware Study of Agricultural Occupations other than Farming

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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INTRODUCTION

The full title of this study, "Identification of Agricultural Occupations Other Than Farming and the Scientific and Technical Education Needed for Employment and Advancement in These Occupations in Delaware," is descriptive of the major objectives of the investigation. It is jointly sponsored by the Department of Agricultural Education, School of Agriculture, University of Delaware and the Agricultural Education Section, Division of Vocational-Technical Education and Extended Services, State Department of Public Instruction.

Project leader for the study is Ralph P. Barwick, Assistant Professor of Agricultural Education, School of Agriculture, University of Delaware, and project advisors are Dr. William E. McDaniel, Director of Resident Instruction, School of Agriculture, University of Delaware and Daniel E. Koble, Jr., State Supervisor of Agricultural Education, State Department of Public Instruction. A grant was obtained through the Division of Vocational-Technical Education and Extended Services, State Department of Public Instruction, to help finance the project.

This report is preliminary in nature and is primarily an enumeration of occupations by title and/or occupational family. A complete report will be published at a later date.

OBJECTIVES AND PURPOSE OF THE STUDY

The complete study has as its objectives the following:

1. To identify present and emerging agricultural occupations, other than farming, by job title, for which scientific, technical, and vocational agricultural education is needed in Delaware.

2. To determine the number of employees presently employed in these occupations and the numbers to be employed in the future.

3. To estimate the entry opportunities in present agricultural occupations due to turnover.

4. To determine the competencies needed for entry and satisfactory performance in these occupations.

5. To determine common competencies needed for employment and advancement in each of several groups of agricultural occupations.

6. To determine other characteristics of these occupations such as salary, minimum age of entry, union restrictions, labor laws, licensing, certification, experience, and formal education.

7. To determine the continuing educational needs of those employed in these occupations.

A complex of agricultural businesses and services has evolved to aid and facilitate the efforts of the producer on the farm. As a result, those concerned with agricultural education are aware that farming is only a portion of the broad agricultural industry. Farmers are customers for six million workers. These workers supply farmers each year with production supplies valued at 28 billion dollars. Also, ten million workers transport, process, manufacture, and sell farm products.

Broadened and extended programs in agricultural education need to be developed to meet the educational needs of certain workers in these off-farm agricultural occupations. This requires additional information over that which is currently available in order to make these adjustments and extensions in an intelligent manner.

The vocational agriculture program under federal reimbursement, came into being with the passage of the Smith-Hughes Act in 1917. One of the controlling purposes of the Act was that "such education be designed, to meet the needs of persons over fourteen years of age who have entered upon or who are preparing to enter upon the work of the farm or of the farm home." When the fact became more and more recognized that agriculture was more than farming and an expanded program of vocational agriculture was needed, a movement was initiated to establish new legislation.

The "Vocational Education Act of 1963," P.L. 88-210, is now law. This Act provides that "any amounts allotted (or apportioned) under such titles, Act, or Acts for agriculture may be used for vocational education in any occupation involving knowledge and skills in agricultural subjects, whether or not such occupation involves work of the farm or of the farm home, and such education may be provided without directed or supervised practice on a farm.' The passage of this legislation makes the identification of off-farm agricultural occupations with specific job titles imperative.

There is also a need to identify the agricultural occupations

that require post-high school technical and scientific education in agriculture, the formal education or training needed and the levels at which the education and training should be offered.

PROCEDURE

In order to implement this study a list of the businesses in the state that were listed with the Delaware Employment Security Commission was secured. From this list, businesses were selected whose employees, we believed, would find a knowledge of agriculture useful or necessary in their occupation.

For this study agricultural occupations will be defined as those in which the worker needs competencies in one or more of the primary areas of plant and soil science, animal science, agricultural business management, marketing, and agricultural mechanization.

In order to make certain that all of the various types of businesses and services in the state would be included in the study, the firms were stratified into 55 occupational sub-families according to the type of business. Stratification was also made by geographic subdivision in case there would be any differences due to geographic location. The "disproportionate random sample" method was used in drawing the sample.

The data were obtained by having the teacher educator or one of three trained assistants interview a responsible person representing the business or service included in the random sample. The businesses or services included in the 55 occupational sub-families are grouped into eight occupational families. The per cent of businesses interviewed varied according to the number of businesses within a category.

The occupational families and the per cent sample follows:

Occupational Family	Number of Businesses and Services in Delaware	Number of Businesses and Services Interviewed	Per Cent of Businesses and Services Interviewed
Farm Machinery Sales and Service	29	6	20.7
Farm Supplies and Equipment	239	33	13.8
Livestock and Poultry Industries	205	35	17.0

Crops, Forestry and Soil Conservation	204	32	15.7
Ornamental Horticulture	176	26	14.8
Wildlife and Recreation	1	1	100.0
Agricultural and Farm Service	744	83	11.2
Food Marketing and Distribution	455	51	11.2
Totals and Average	2053	267	13.0

PRESENTATION OF DATA

The data obtained from the interviews by the teacher educator and assistants are presented in Tables 1 through 8. Eventhough this is a preliminary report, and further analysis of these data will be made at a later date, there are some observations that should be made at this time.

1. Approximately 20 per cent, or 32,776 (Table 2), of the total number of employees in the State of Delaware, which equals 165,008 excluding farming (Table 1), are employed in businesse and services other than farming in which it was believed the employees would find a knowledge of agriculture useful or necessary in their occupation.

2. Approximately 15 per cent, or 5,050 (Table 2), of the 32,776 that are employed in these businesses and services were found to need agricultural competencies.

3. During the next five years 2,154 additional and replacement employees having agricultural competencies will need to be hired in these businesses and services, Table 1.

4. Table 1 shows 7,352 persons employed in "Farming" and a need for 551 replacements during the next five years. Eventhough this report primarily concerns off-farm agricultural occupations, "Farming" is included in Table 1 for the purpose of making comparisons. The figure of 551 replacements was determined by assuming a one and one-half per cent replacement rate per year. This percentage is the result of research done in Iowa which considered both the age of present farm workers and the decline in number of farms.

5. Delaware has approximately 5 persons employed in off-farm occupations requiring agricultural competencies for every 7 persons engaged in farming.

6. The occupational families requiring the greater percentages of employees needing agricultural competencies are "Farm Machinery Sales and Service" and "Ornamental Horticulture," 64.5 and 45.4 respectively, Table 2. "Livestock and Poultry Industries" and "Agricultural and Farm Service" had the lowest percentages of employees needing agricultural competencies, both indicating 6.3. Also, the "Crops, Forestry and Soil Conservation" occupational family was low with 8.0.

7. Table 3, listing occupational sub-families, aids in understanding the three low percentages in the occupational families previously presented. The "Livestock and Poultry Industries" occupational family includes the "Poultry Processing" sub-family. This sub-family employs 2,810 persons, but the employers indicated that only 66, or 2.3 per cent, needed agricultural competencies.

   The "Canned Fruits and Vegetables" sub-family is included in the "Crops, Forestry, and Soil Conservation" family. The "Canned Fruits and Vegetables" sub-family employs 3,836 persons, but again employers indicated a small percentage needing agricultural competencies. In this case, 269, or 7.0 per cent. In both the "Poultry Processing" and "Canned Fruits and Vegetables" sub-families employers indicated that they did not believe the persons working on the processing lines needed agricultural competencies.

   The "Agricultural and Farm Service" occupational family includes several occupational sub-families in which it was suspected that the number of persons needing agricultural competencies would be low, but the study would not have been complete without their inclusion. For example, "General Building Contractors," 2.3 per cent; "Trucking," 1.6 per cent; "Utilities," 0.4 per cent; "Fuel Oil and Gasoline Dealers," 0.0 per cent; and "Real Estate Agencies," 0.8 per cent.

8. There are three occupational families in which more than 30 per cent of the businesses were established in the last 10 years, Table 4. These are "Farm Machinery Sales and Service," "Ornamental Horticulture," and "Food Marketing and Distribution." "Food Marketing and Distribution" is outstanding in this respect with 52 per cent of the businesses established in the last 10 years.

9. Table 5 shows there are three occupational families in which 50 per cent or more of the businesses indicated that 100 per cent of their gross income is agriculturally oriented. These are "Farm Machinery Sales and Service,"

"Livestock and Poultry Industries," and "Crops, Forestry, and Soil Conservation."

10. The occupational family having the greatest number of "Employees to be Hired During Next 5 Years" is "Food Marketing and Distribution" with 1,067 needed, Table 6. "Ornamental Horticulture" is next, needing 385.

11. Of the 5,050 persons employed needing agricultural competencies, 2,610, or 51.7 per cent, are employed at the professional, managerial, and supervisory levels of employment; Table 7. The supervisory level has the greatest number, 1,385.

12. Tables 8-1 through 8-8 list the occupational titles by level of employment and occupational family. These tables indicate the large number of occupational titles in the managerial and supervisory levels of employment. A large number of the occupational titles at the professional level of employment is found in Table 8-7.

13. Delaware has 16 departments of vocational agriculture. Table 1 indicates the number of persons needed in the next five years to enter farming and to enter other businesses and services needing employees with agricultural competencies, both full-time and part-time. From these data the number of persons needed per vocational agriculture department per year can be determined. This information is presented as follows:

Classification of Workers	To Be Hired Next 5 Years		To Be Hired For One Year		Number Needed Per H. S. Ag. Dept. Per Year	
	Full-time	Part-time	Full-time	Part-time	Full-time	Part-time
Farm Worker	392	159	78	32	4.9	2.0
Agricultural Businesses and Services (Excluding Farming)	1496	658	298	132	18.6	8.2
Totals	1888	817	376	164	23.5	10.2

14. Each vocational agriculture department in the State of Delaware will need to graduate approximately 34 persons per year to fill the employment opportunities in each of several groups of agricultural occupations.

Table 1

SUMMARY OF BUSINESSES AND SERVICES, AND NUMBER OF EMPLOYEES NEEDING AGRICULTURAL COMPETENCIES, INCLUDING FARMS AND FARM WORKERS
Delaware, 1964

Classification of Businesses and Services	Number of Businesses and Services	Persons Employed			Employees to be Hired During Next 5 Years		
		Total	Full-time	Part-time	Total	Full-time	Part-time
Farming[1]	5203	7352	5226	2126	551	392	159
Businesses and Services Included in the Study and Estimated Number of Employees Needing Agricultural Competencies (Excluding Farming)[2]	2053	5050	4543	507	2154	1496	658
All Businesses[3] (Excluding Farming)	8538	165008					

[1]"Persons Employed," U. S. Census of Agriculture, 1959. "Employees to be Hired During Next 5 Years" (persons to enter farming) based on 1½ per cent replacement per year.

[2]Delaware Off-Farm Agricultural Occupations Study, Agricultural Education, School of Agriculture, University of Delaware, 1964.

[3]County Business Patterns, U. S. Department of Commerce, Bureau of Census, First Quarter, 1962.

Table 2

NUMBER OF AGRICULTURAL BUSINESSES AND SERVICES, TOTAL ESTIMATED PERSONS EMPLOYED, ESTIMATED NUMBER OF EMPLOYEES NEEDING AGRICULTURAL COMPETENCIES, AND PER CENT OF EMPLOYEES NEEDING AGRICULTURAL COMPETENCIES, BY OCCUPATIONAL FAMILY
Delaware, 1964

Occupational Family	Number of Businesses and Services	All Persons Employed	Number Employees Needing Agricultural Competencies	Per Cent Employees Needing Agricultural Competencies
Farm Machinery Sales and Service	29	262	169	64.5
Farm Supplies and Equipment	239	2998	604	20.1
Livestock and Poultry Industries	205	6102	383	6.3
Crops, Forestry and Soil Conservation	204	6005	478	8.0
Ornamental Horticulture	176	2663	1209	45.4
Wildlife and Recreation	1	40	8	20.0
Agricultural and Farm Service	744	8367	527	6.3
Food Marketing and Distribution	455	6339	1672	26.4
Totals and Average	2053	32776	5050	15.4

Table 3

NUMBER OF AGRICULTURAL BUSINESSES AND SERVICES, TOTAL ESTIMATED PERSONS EMPLOYED, ESTIMATED NUMBER OF EMPLOYEES NEEDING AGRICULTURAL COMPETENCIES, AND PER CENT OF EMPLOYEES NEEDING AGRICULTURAL COMPETENCIES, BY OCCUPATIONAL SUB-FAMILY
Delaware, 1964

Occupational Sub-Family	Number of Businesses and Services	All Persons Employed	Number Employees Needing Agricultural Competencies	Per Cent Employees Needing Agricultural Competencies
1. Artificial Breeding	2	9	9	100.0
2. General Agricultural Services (Fertilizer spreading, etc.)	8	84	8	9.5
3. Veterinarians	41	109	88	80.8
4. Hatcheries	16	534	79	14.8
5. Animal Husbandry Services (Horse trainers, etc.)	30	98	36	36.7
6. Horticultural Services (Cemetery upkeep, tree work, etc.)	43	590	557	94.4
7. Nurseries	30	882	426	48.3
8. General Building Contractors (Wilmington not included)	310	3105	71	2.3
9. Meat Packing	10	93	33	35.5
10. Prepared Meats	3	43	4	9.3
11. Poultry Processing	11	2810	66	2.3
12. Natural Cheese	1	9	3	33.3
13. Ice Cream	3	245	9	3.7
14. Fluid Milk	20	196	20	10.2
15. Canned Fruits and Vegetables	17	3836	269	7.0
16. Pickled Fruits and Vegetables	3	73	3	4.1
17. Frozen Fruits and Vegetables	5	280	10	3.6
18. Fruit Packers and Brokers	16	53	23	43.4
19. Flour and Grain Mills	9	25	17	68.0
20. Animal Feeds	19	581	96	16.5
21. Lumber and Wood Products	48	822	41	5.0

Table 3 (continued)

22.	Newspapers	18	170	00	0.0
23.	Agricultural Drugs	4	50	28	56.0
24.	Fertilizers	6	121	35	28.9
25.	Agricultural Chemicals	7	299	101	33.8
26.	Leather Tanning	6	600	00	0.0
27.	Trucking (Wilmington not included)	172	2220	36	1.6
28.	Warehousing (Wilmington not included)	6	39	6	15.4
29.	Radio and Television	15	125	00	0.0
30.	Utilities	8	1306	5	0.4
31.	Wholesale Groceries	72	1112	122	11.0
32.	Wholesale Farm Products	14	509	83	16.3
33.	Poultry and Livestock Auctions	5	31	4	12.9
34.	Farm Machinery Manufacturers	12	376	85	22.6
35.	Lumber Dealers	83	744	68	9.1
36.	Hardware Stores	70	375	52	13.9
37.	Farm Machinery and Equipment Dealers	34	287	171	59.6
38.	Grocery Stores	303	4437	1365	30.8
39.	Meat Markets	34	140	66	47.1
40.	Fruit and Vegetable Markets	18	44	22	50.0
41.	Dairy Products Stores	3	73	1	1.3
42.	Egg, Poultry and Miscellaneous Stores	8	37	21	56.8
43.	Farm and Garden Supplies	53	334	204	61.1
44.	Fuel Oil and Gasoline Dealers	62	789	00	0.0
45.	Florists	34	124	73	58.9
46.	Banks	73	1390	42	3.0
47.	Agricultural Credit Institutions	1	8	4	50.0
48.	Insurance Agencies (Wilmington not included)	56	244	42	17.2
49.	Real Estate Lessors (Wilmington not included)	47	210	00	0.0
50.	Real Estate Agencies (Wilmington not included)	54	250	2	0.8
51.	Combination Real Estate and Insurance Agencies (Wilmington not included)	14	72	16	22.2
52.	Exterminating Services	28	117	67	57.3
53.	Golf and Country Clubs	14	279	30	10.8
54.	Estates	48	264	96	36.4
55.	County, State and Federal Agencies	26	1123	335	29.8
	Totals and Average	2053	32776	5050	15.4

Table 4

NUMBER OF YEARS SINCE ESTABLISHMENT OF AGRICULTURAL BUSINESSES AND SERVICES IN THE STATE BY OCCUPATIONAL FAMILY
Delaware, 1964

Occupational Family	Per Cent of Businesses Indicating the Business was Established: Within last 5 years	6-10 yrs. ago	11-15 yrs. ago	16-20 yrs. ago	21-25 yrs. ago	26-30 yrs. ago	31-35 yrs. ago	36-40 yrs. ago	41-45 yrs. ago	46-50 yrs. ago	Over 50 yrs. ago
Farm Machinery Sales and Service	17	17	0	17	17	0	16	16	0	0	0
Farm Supplies and Equipment	12	9	12	19	'6	9	9	3	6	3	12
Livestock and Poultry Industries	6	9	9	17	17	17	6	17	2	0	0
Crops, Forestry and Soil Conservation	6	6	16	19	22	6	0	9	0	0	16
Ornamental Horticulture	14	19	8	4	0	19	0	8	4	12	12
Wildlife and Recreation	0	0	0	0	0	0	0	0	0	0	100
Agricultural and Farm Service	12	17	14	5	4	2	10	6	0	8	22
Food Marketing and Distribution	25	27	4	14	4	8	6	8	2	0	2

Table 5

PER CENT OF GROSS INCOME AGRICULTURALLY ORIENTED IN AGRICULTURAL BUSINESSES AND SERVICES, BY OCCUPATIONAL FAMILY
Delaware, 1964

Occupational Family	Per Cent of Businesses Indicating Their Per Cent of Agriculturally Oriented Gross Income is:										
	Less than 10%	10%-19%	20%-29%	30%-39%	40%-49%	50%-59%	60%-69%	70%-79%	80%-89%	90%-99%	100%
Farm Machinery Sales and Service	0	0	0	0	0	0	0	0	17	33	50
Farm Supplies and Equipment	21	3	3	3	6	6	3	0	3	9	43
Livestock and Poultry Industries	3	0	0	0	3	3	3	0	0	9	79
Crops, Forestry and Soil Conservation	16	3	0	0	0	6	0	3	0	0	72
Ornamental Horticulture	15	12	0	0	0	12	0	8	12	8	33
Wildlife and Recreation	0	0	0	0	0	0	100	0	0	0	0
Agricultural and Farm Service	51	6	5	4	4	1	2	1	1	5	20
Food Marketing and Distribution	2	0	0	2	0	4	0	14	22	12	44

Table 6

ESTIMATED NUMBER OF FULL-TIME AND PART-TIME EMPLOYEES NEEDING AGRICULTURAL COMPETENCIES, EXPECTED FIVE YEARS HENCE, AND NUMBER OF EMPLOYEES TO BE HIRED DURING NEXT FIVE YEARS, IN AGRICULTURAL BUSINESSES AND SERVICES, BY OCCUPATIONAL FAMILY
Delaware, 1964

Occupational Family	Employees Needing Agricultural Competencies						Employees to be Hired During Next 5 Years[1]		
	Current			Expected 5 Yrs. Hence					
	Total	Full-time	Part-time	Total	Full-time	Part-time	Total	Full-time	Part-time
Farm Machinery Sales and Service	169	165	4	221	217	4	82	82	0
Farm Supplies and Equipment	604	596	8	667	644	23	99	81	18
Livestock and Poultry Industries	383	383	0	468	468	0	159	159	0
Crops, Forestry and Soil Conservation	478	468	10	615	599	16	216	208	8
Ornamental Horticulture	1209	1122	87	1372	1230	142	385	275	110
Wildlife and Recreation	8	8	0	9	9	0	2	2	0
Agricultural and Farm Service	527	497	30	618	573	45	144	98	46
Food Marketing and Distribution	1672	1304	368	1975	1471	504	1067	591	476
Totals	5050	4543	507	5945	5211	734	2154	1496	658

[1]"Employees to be Hired During Next 5 Years" includes additional employees and replacement employees.

Table 7

ESTIMATED NUMBER OF PERSONS EMPLOYED WHO NEED AGRICULTURAL COMPETENCIES IN EIGHT OCCUPATIONAL FAMILIES, BY LEVEL OF EMPLOYMENT
Delaware, 1964

Occupational Family	Occupational Levels of Employment								
	Professional	Managerial	Supervisory	Technical	Sales	Clerical	Skilled	Semi-Skilled	Totals
Farm Machinery Sales and Service	0	29	18	0	53	1	52	16	169
Farm Supplies and Equipment	37	141	202	55	49	24	54	42	604
Livestock and Poultry Industries	62	137	95	19	0	1	33	36	383
Crops, Forestry, and Soil Conservation	11	81	270	41	0	15	35	25	478
Ornamental Horticulture	0	138	221	0	23	0	162	665	1209
Wildlife and Recreation	0	2	5	0	0	0	1	0	8
Agricultural and Farm Service	164	39	29	88	60	10	102	35	527
Food Marketing and Distribution	0	384	545	16	2	431	199	95	1672
Totals	274	951	1385	219	187	482	638	914	5050

Table 8-1

ESTIMATED NUMBER OF PERSONS WHO NEED AGRICULTURAL COMPETENCIES, CURRENT, FIVE YEARS HENCE, AND TO BE HIRED DURING NEXT FIVE YEARS, IN THE FARM MACHINERY SALES AND SERVICE OCCUPATIONAL FAMILY, BY LEVEL OF EMPLOYMENT AND OCCUPATIONAL TITLE
Delaware, 1964

Level of Employment / Occupational Titles	Current		Expected 5 Yrs. Hence		Employees to be Hired During Next 5 Years	
	Full-time	Part-time	Full-time	Part-time	Full-time	Part-time
Professional Occupations						
Farm Machinery Sales Engineer	0	0	4	0	4	0
Sub-Totals	0	0	4	0	4	0
Managerial Occupations						
Farm Machinery Business General Manager	21	0	21	0	4	0
Farm Implement Manufacturing Plant General Manager	1	0	1	0	1	0
Farm Machinery Business Assistant Manager	7	0	7	0	0	0
Sub-Totals	29	0	29	0	5	0
Supervisory Occupations						
Farm Machinery Sales Supervisor	4	0	4	0	0	0
Farm Machinery Service Supervisor	4	0	4	0	0	0
Farm Machinery Parts Supervisor	4	0	4	0	0	0
Farm Machinery Shop Foreman	6	0	6	0	6	0
Sub-Totals	18	0	18	0	6	0

Table 8-1 (continued)

Sales Occupations						
Farm Machinery Salesman	43	0	54	0	24	0
Farm Machinery Parts Salesman	8	0	8	0	0	0
Farm Implement Salesman	2	0	8	0	8	0
Sub-Totals	53	0	70	0	32	0
Clerical Occupations						
Farm Implement Manufacturing Plant Shipping Clerk	1	0	5	0	4	0
Sub-Totals	1	0	5	0	4	0
Skilled Occupations						
Farm Machinery Mechanic	52	0	67	0	19	0
Sub-Totals	52	0	67	0	19	0
Semi-Skilled Occupations						
Farm Machinery Mechanic's Helper	8	4	20	4	12	0
Farm Machinery Truck Driver	4	0	4	0	0	0
Sub-Totals	12	4	24	4	12	0
Totals	165	4	217	4	82	0

Table 8-2

ESTIMATED NUMBER OF PERSONS WHO NEED AGRICULTURAL COMPETENCIES, CURRENT, FIVE YEARS HENCE, AND TO BE HIRED DURING NEXT FIVE YEARS, IN THE FARM SUPPLIES AND EQUIPMENT OCCUPATIONAL FAMILY, BY LEVEL OF EMPLOYMENT AND OCCUPATIONAL TITLE
Delaware, 1964

Level of Employment / Occupational Titles	Current		Expected 5 Yrs. Hence		Employees to be Hired During Next 5 Years	
	Full-time	Part-time	Full-time	Part-time	Full-time	Part-time
Professional Occupations						
Nutritionist (Feed Manufacturing)	5	0	5	0	5	0
Agricultural Chemicals Research Entomologist	3	0	3	0	0	0
Agricultural Chemicals Research Plant Pathologist	3	0	3	0	0	0
Agricultural Chemicals Research Plant Physiologist	3	0	3	0	0	0
Agricultural Chemicals Senior Plant Physiologist	5	0	5	0	0	0
Agricultural Chemicals Senior Nematologist	3	0	3	0	0	0
Veterinarian	6	0	8	0	2	0
Agricultural Chemist	3	0	3	0	0	0
Bacteriologist	6	0	6	0	2	0
Sub-Totals	37	0	39	0	9	0
Managerial Occupations						
Farm and Garden Supplies Store Manager	19	0	19	0	0	0
Pesticides Distribution General Manager	2	0	4	0	2	0
Feed Mill Manager	8	0	8	0	3	0
Fertilizer Manufacturing Plant Manager	6	0	9	0	3	0

Table 8-2 (continued)

Fertilizer Manufacturing Assistant Plant Manager	1	0	1	0	0	0
Farm and Garden Supplies General Manager	60	0	60	0	0	0
Farm and Garden Supplies Assistant Manager	5	0	5	0	0	0
Lime Spreader Service Manager	4	0	4	0	0	0
Hardware Store Manager	23	0	23	0	0	0
Hardware Store Assistant Manager	13	0	13	0	0	0
Sub-Totals	141	0	146	0	8	0
Supervisory Occupations						
Poultry Equipment Manufacturing Plant Office Manager	8	0	8	0	0	0
Poultry Equipment Manufacturing Plant Repair Manager	8	0	8	0	0	0
Poultry Equipment Manufacturing Manager	8	0	8	0	0	0
Poultry Equipment Manufacturing Plant Warehouse Manager	8	0	8	0	0	0
Poultry Equipment Manufacturing Plant Assembly Manager	8	0	8	0	0	0
Feed Mill Foreman	5	0	5	0	0	0
Feed Mill Maintenance Supervisor	5	0	5	0	0	0
Feed Mill Corn Department Supervisor	5	0	5	0	0	0
Feed Sales and Service Supervisor	6	0	6	0	0	0
Feed Mill Office Manager	5	0	5	0	0	0
Farm and Garden Supplies Sales Manager	5	0	5	0	0	0
Farm and Garden Supplies Service Manager	5	0	5	0	0	0
Feed Mill Superintendent	5	0	5	0	0	0
Feed Mill Maintenance Foreman	5	0	5	0	0	0

Table 8-2 (continued)

Feed Mill Manufacturing Foreman	6	0	6	0	0	0
Animal Health Products Sales Manager	2	0	2	0	0	0
Fertilizer Manufacturing Plant Supervisor	3	0	3	0	0	0
Feed Mill Quality Control Foreman	3	0	3	0	3	0
Feed Mill Grain Elevator Foreman	3	3	3	3	3	3
Fertilizer Manufacturing Plant Superintendent	1	0	1	0	0	0
Fertilizer Manufacturing Plant Office Manager	4	0	4	0	0	0
Agricultural Chemicals Section Supervisor	6	0	6	0	0	0
Agricultural Chemicals Laboratory Group Leader	3	0	3	0	0	0
Agricultural Chemicals Marketing Manager	3	0	3	0	0	0
Agricultural Chemicals Development Manager	3	0	3	0	0	0
Agricultural Chemicals Development Representative	5	0	8	0	3	0
Fertilizer Sales Manager	3	0	3	0	3	0
Pesticides Sales Manager	3	0	3	0	3	0
Herbicides Sales Manager	3	0	3	0	0	0
Pesticides Control Service Manager	3	0	3	0	0	0
Dairy Equipment Sales Manager	3	0	3	0	0	0
Farm and Garden Supplies Operation Manager	15	0	15	0	0	0
Farm and Garden Supplies Assistant Manager for Sales	5	0	5	0	0	0
Farm and Garden Supplies Floor Supervisor	15	0	15	0	0	0

Table 8-2 (continued)

Tire and Battery Supervisor	5	0	5	0	0	0
Farm and Garden Supplies Warehouse Supervisor	6	0	6	0	0	0
Farm and Garden Supplies Sales Supervisor	10	0	10	0	0	0
Sub-Totals	199	3	202	3	15	3
Technical Occupations						
Feed Mill Corn Buyer	5	0	5	0	0	0
Animal Health Products Laboratory Technician	4	0	4	0	0	0
Feed Ingredients Purchaser	9	0	9	0	3	0
Agricultural Chemicals Laboratory Technician	3	0	3	0	0	0
Agricultural Chemicals Greenhouse Technician	3	0	3	0	0	0
Agricultural Chemicals Senior Laboratory Assistant	5	0	8	0	3	0
Agricultural Chemicals Laboratory Assistant	8	0	16	0	8	0
Farm and Garden Supplies Fieldman	16	0	16	0	0	0
Fertilizer Manufacturing Plant Fieldman	2	0	2	0	0	0
Sub-Totals	55	0	66	0	14	0
Sales Occupations						
Animal Health Products Salesman	4	0	4	0	0	0
Pesticides Salesman	4	0	8	0	4	0
Agricultural Chemicals Salesman	10	0	10	0	5	0
Fertilizer Salesman	18	0	18	0	0	0
Hardware Salesman	13	0	13	0	0	0
Sub-Totals	49	0	53	0	9	0

Table 8-2 (continued)

Clerical Occupations						
Pesticides Clerk	2	0	2	0	0	0
Pesticides Bookkeeper	2	0	4	0	2	0
Feed Mill Production Accountant	3	0	3	0	3	0
Farm and Garden Supplies Clerk	6	5	6	10	0	5
Farm and Garden Supplies Bookkeeper	6	0	6	0	0	0
Sub-Totals	19	5	21	10	5	5
Skilled Occupations						
Farm and Garden Supplies Serviceman	6	0	6	0	0	0
Poultry Equipment Manufacturing Plant Sheet Metal Mechanic	32	0	48	0	16	0
Miller	11	0	11	0	0	0
Assistant Miller	5	0	5	0	0	0
Sub-Totals	54	0	70	0	16	0
Semi-Skilled Occupations						
Laboratory Animal Caretaker	6	0	6	0	0	0
Agricultural Chemicals Laboratory Helper	10	0	15	0	5	0
Farm and Garden Supplies Truck Driver	21	0	21	0	0	0
Farm and Garden Supplies Service Center Helper	5	0	5	10	0	10
Sub-Totals	42	0	47	10	5	10
Totals	596	8	644	23	81	18

Table 8-3

ESTIMATED NUMBER OF PERSONS WHO NEED AGRICULTURAL COMPETENCIES, CURRENT FIVE YEARS HENCE, AND TO BE HIRED DURING NEXT FIVE YEARS, IN THE LIVESTOCK AND POULTRY INDUSTRIES OCCUPATIONAL FAMILY, BY LEVEL OF EMPLOYMENT AND OCCUPATIONAL TITLE
Delaware, 1964

Level of Employment / Occupational Titles	Current		Expected 5 Years Hence		Employees to be Hired During Next 5 Years	
	Full-time	Part-time	Full-time	Part-time	Full-time	Part-time
Professional Occupations						
Veterinarian	62	0	62	0	0	0
Sub-Totals	62	0	62	0	0	0
Managerial Occupations						
Horse Facilities Rental Manager	12	0	12	0	12	0
Slaughter House Manager	10	0	10	0	0	0
Assistant Slaughter House Manager	6	0	6	0	0	0
Prepared Meats Plant Manager	2	0	2	0	0	0
Cheese Plant Manager	1	0	1	0	0	0
Dairy Plant Manager	20	0	20	0	0	0
Hatchery Manager	16	0	17	0	2	0
Poultry and Livestock Auction Manager	2	0	2	0	0	0
Assistant Hatchery Manager	15	0	30	0	16	0
Poultry Processing Plant Manager	11	0	11	0	4	0
Poultry Manure Spreader Service Manager	4	0	4	0	0	0
Packing House Manager	1	0	1	0	0	0
Ice Cream Plant Manager	1	0	1	0	0	0
Poultry Trucking Firm Manager	36	0	36	0	0	0
Sub-Totals	137	0	153	0	34	0
Supervisory Occupations						
Cheese Plant Supervisor	2	0	2	0	0	0
Ice Cream Plant Production Manager	2	0	2	0	2	0
Ice Cream Plant Assistant Production Manager	2	0	2	0	2	0
Ice Cream Plant Quality Control Supervisor	2	0	2	0	0	0
Ice Cream Plant Pasteurizing Department Foreman	2	0	2	0	2	0

Table 8-3 (continued)

Poultry Breeding Flock Supervisor	1	0	5	0	6	0
Hatchery Foreman	28	0	56	0	28	0
Packing House Superintendent	1	0	1	0	0	0
Packing House Sales Manager	1	0	1	0	0	0
Meat Processing Plant Office Manager	1	0	1	0	0	0
Meat Processing Plant Superintendent	1	0	1	0	0	0
Poultry Processing Plant Sales Manager	8	0	12	0	4	0
Poultry Processing Plant Office Manager	4	0	4	0	0	0
Poultry Processing Plant Superintendent	4	0	4	0	0	0
Poultry Processing Plant Quality Control Manager	4	0	4	0	0	0
Poultry Processing Plant Foreman	32	0	52	0	28	0
Sub-Totals	95	0	151	0	72	0
Technical Occupations						
Live Poultry Inspector	2	0	3	0	1	0
Live Poultry Buyer	3	0	3	0	0	0
Broiler Flock Fieldman	14	0	14	0	0	0
Sub-Totals	19	0	20	0	1	0
Clerical Occupations						
Hatchery Bookkeeper	1	0	1	0	0	0
Sub-Totals	1	0	1	0	0	0
Skilled Occupations						
Horse Trainer	15	0	15	0	0	0
Butcher	16	0	16	0	3	0
Livestock Dealer	2	0	2	0	0	0
Sub-Totals	33	0	33	0	3	0
Semi-Skilled Occupations						
Veterinarian's Helper	26	0	26	0	0	0
Hatchery Worker	4	0	4	0	7	0
Horse Groom	6	0	18	0	42	0
Sub-Totals	36	0	48	0	49	0
Totals	383	0	468	0	159	0

Table 8-4

ESTIMATED NUMBER OF PERSONS WHO NEED AGRICULTURAL COMPETENCIES, CURRENT, FIVE YEARS HENCE, AND TO BE HIRED DURING NEXT FIVE YEARS, IN THE CROPS, FORESTRY AND SOIL CONSERVATION OCCUPATIONAL FAMILY, BY LEVEL OF EMPLOYMENT AND OCCUPATIONAL TITLE
Delaware, 1964

Level of Employment / Occupational Titles	Current		Expected 5 Yrs. Hence		Employees to be Hired During Next 5 Years	
	Full-time	Part-time	Full-time	Part-time	Full-time	Part-time
Professional Occupations						
State Conservationist	1	0	1	0	0	0
Work Unit Conservationist	3	0	3	0	1	0
Soil Scientist	2	0	2	0	0	0
Conservation Planning Technician	2	0	2	0	1	0
Conservation Engineer	3	0	4	0	2	0
Sub-Totals	11	0	12	0	4	0
Managerial Occupations						
Lumber Business Manager	17	0	19	0	4	0
Fruit and Vegetable Processing Plant General Manager	4	0	4	0	0	0
Fruit and Vegetable Processing Plant Assistant General Manager	4	0	4	0	0	0
Fruit and Vegetable Freezing Plant Manager	5	0	5	0	0	0
Flour and Grain Mill Manager	9	0	9	0	2	0

Table 8-4 (continued)

Fruit and Vegetable Processing Plant Manager	13	0	13	0	0	0
Fruit and Vegetable Pickling Plant Manager	3	0	3	0	0	0
Wholesale Grain Business General Manager	12	0	12	0	0	0
Sawmill-Lumber Business Manager	10	0	10	0	0	0
Fruit and Vegetable Cold Storage Warehouse Manager	4	0	4	0	0	0
Sub-Totals	81	0	83	0	6	0
Supervisory Occupations						
Fruit and Vegetable Processing Plant Production Manager	16	0	22	0	6	0
Fruit and Vegetable Processing Plant Foreman	4	0	4	0	0	0
Fruit and Vegetable Freezing Plant Sales Manager	2	0	2	0	0	0
Wholesale Grain Mill Superintendent	12	0	12	0	0	0
Fruit and Vegetable Processing Plant Superintendent	12	0	24	0	12	0
Fruit and Vegetable Processing Plant Production Foreman	150	0	210	0	120	0
Fruit and Vegetable Processing Plant Quality Control Supervisor	12	0	24	0	12	0
Fruit and Vegetable Processing Plant Warehouse Supervisor	24	0	36	0	12	0
Timber Crew Foreman	31	0	41	0	10	0
Wholesale Grain Business Assistant to General Manager	7	0	7	0	0	0
Sub-Totals	270	0	382	0	172	0

Table 8-4 (continued)

Technical Occupations						
Engineering Technician	8	0	11	0	4	0
Fruit and Vegetable Freezing Plant Fieldman	1	0	2	0	1	0
Conservation Technician	2	0	2	0	1	0
Fruit and Vegetable Processing Plant Fieldman	30	0	42	0	13	0
Sub-Totals	41	0	57	0	19	0
Clerical Occupations						
Lumber Business Clerk	15	0	15	0	0	0
Sub-Totals	15	0	15	0	0	0
Skilled Occupations						
Miller	2	0	2	0	0	0
Conservation Aid	3	0	3	0	0	0
Farm Building Construction Carpenter	30	0	30	0	0	0
Sub-Totals	35	0	35	0	0	0
Semi-Skilled Occupations						
Lumber Truck Driver	6	0	6	0	4	0
Flour and Grain Mill Worker	6	0	6	0	0	0
Engineering Aid	3	10	3	16	3	8
Sub-Totals	15	10	15	16	7	8
Totals	468	10	599	16	208	8

Table 8-5

ESTIMATED NUMBER OF PERSONS WHO NEED AGRICULTURAL COMPETENCIES, CURRENT, FIVE YEARS HENCE, AND TO BE HIRED DURING NEXT FIVE YEARS, IN THE ORNAMENTAL HORTICULTURE OCCUPATIONAL FAMILY, BY LEVEL OF EMPLOYMENT AND OCCUPATIONAL TITLE
Delaware, 1964

Level of Employment / Occupational Titles	Current		Expected 5 Years Hence		Employees to be Hired During Next 5 Years	
	Full-time	Part-time	Full-time	Part-time	Full-time	Part-time
Professional Occupations						
Landscape Architect	0	0	1	0	1	0
Sub-Totals	0	0	1	0	1	0
Managerial Occupations						
Tree Service Manager	26	0	26	0	0	0
Nursery Manager	30	0	30	0	0	0
Floral Shop Manager	33	0	33	0	0	0
Golf Course Superintendent	14	0	14	0	0	0
Estate General Superintendent	12	0	12	0	12	0
State Park Director	1	0	1	0	0	0
Assistant State Park Director	0	0	1	0	1	0
Garden Center Manager	3	0	3	0	0	0
Assistant Nursery Manager	18	0	18	0	9	0
Superintendent of Grounds	1	0	1	0	0	0
Sub-Totals	138	0	139	0	22	0
Supervisory Occupations						
Tree Service Foreman	82	0	82	0	82	0
Landscape Supervisor	11	0	11	0	0	0
Landscape Foreman	80	0	100	0	49	0
Nursery Production Manager	11	0	11	0	0	0
Assistant Golf Course Superintendent	14	0	14	0	0	0
Regional Park Superintendent	2	0	2	0	0	0
Area Park Superintendent	5	0	9	0	6	0
Assistant Area Park Superintendent	4	0	9	0	5	0

Table 8-5 (continued)

Park Labor Foreman	1	0	6	0	5	0
Highway Beautification Foreman	3	0	3	0	0	0
Assistant Highway Beautification Foreman	3	0	3	0	0	0
Highway Maintenance Supervisor	3	0	3	0	0	0
Nursery Superintendent	1	0	1	0	0	0
Grounds Maintenance Foreman	1	0	2	0	1	0
Assistant Superintendent of Grounds	0	0	1	0	1	0
Sub-Totals	221	0	257	0	149	0
Sales Occupations						
Tree Service Salesman	12	0	35	0	35	0
Landscape Salesman - Designer	11	0	33	0	22	0
Sub-Totals	23	0	68	0	57	0
Clerical Occupations						
Horticultural Secretary	0	0	11	0	11	0
Sub-Totals	0	0	11	0	11	0
Skilled Occupations						
Landscape Gardner	41	0	41	0	0	0
Ornamental Plant Propagator	11	0	11	0	0	0
Estate Groundskeeper	36	0	36	0	0	0
Estate Gardner	24	0	24	0	12	0
Floral Designer	10	40	10	50	0	20
Sub-Totals	122	40	122	50	12	20
Semi-Skilled Occupations						
Tree Service Groundman	70	47	70	47	0	0
Tree Service Climber	303	0	315	0	12	0
Nursery Tractor Driver	54	0	54	0	9	0
Nursery Worker	189	0	189	45	0	90
Golf Course Tractor Driver	2	0	4	0	2	0
Sub-Totals	618	47	632	92	23	90
Totals	1122	87	1230	142	275	110

Table 8-6

ESTIMATED NUMBER OF PERSONS WHO NEED AGRICULTURAL COMPETENCIES, CURRENT, FIVE YEARS HENCE, AND TO BE HIRED DURING NEXT FIVE YEARS, IN THE WILDLIFE AND RECREATION OCCUPATIONAL FAMILY, BY LEVEL OF EMPLOYMENT AND OCCUPATIONAL TITLE
Delaware, 1964

Level of Employment / Occupational Titles	Current		Expected 5 Years Hence		Employees to be Hired During Next 5 Years	
	Full-time	Part-time	Full-time	Part-time	Full-time	Part-time
Managerial Occupations						
Assistant Game and Fish Director	1	0	1	0	0	0
Game and Fish Director	1	0	1	0	0	0
Sub-Totals	2	0	2	0	0	0
Supervisor Occupations						
Game and Fish Manager	3	0	3	0	1	0
Assistant Game and Fish Manager	2	0	3	0	1	0
Sub-Totals	5	0	6	0	2	0
Skilled Occupations						
Game and Fish Real Estate Specialist	1	0	1	0	0	0
Sub-Totals	0	0	1	0	0	0
Totals	8	0	9	0	2	0

Table 8-7

ESTIMATED NUMBER OF PERSONS WHO NEED AGRICULTURAL COMPETENCIES, CURRENT, FIVE YEARS HENCE, AND TO BE HIRED DURING NEXT FIVE YEARS, IN THE AGRICULTURAL AND FARM SERVICE OCCUPATIONAL FAMILY, BY LEVEL OF EMPLOYMENT AND OCCUPATIONAL TITLE
Delaware, 1964

Level of Employment / Occupational Titles	Current		Expected 5 Years Hence		Employees to be Hired During Next 5 Years	
	Full-time	Part-time	Full-time	Part-time	Full-time	Part-time
Professional Occupations						
Veterinarian	2	0	6	0	4	0
Bank Agricultural Representative	0	0	10	0	10	0
Bank Loan Officer	10	0	20	0	10	0
Agricultural Chemist	9	0	9	0	1	0
Vocational Agriculture Teacher	22	0	31	0	13	0
ASCS Program Specialist	2	0	2	0	0	0
Bank Manager	2	0	2	0	0	0
Assistant Bank Manager	2	0	2	0	0	0
Assistant Bank Treasurer	7	0	7	0	0	0
Agricultural Economist	4	0	4	0	0	0
Bank Vice President	14	0	14	0	0	0
Bank President	7	0	7	0	0	0
Bacteriologist	1	0	1	0	0	0
Plant Pathologist	4	0	4	0	1	0
State Supervisor of Agricultural Education	1	0	1	0	0	0
Plant Scientist	1	0	3	0	2	0
Agricultural Engineer	4	0	4	0	1	0
Animal and Poultry Specialist	14	0	15	0	1	0
Teacher Educator in Agriculture	2	0	3	0	1	0
Food Marketing Specialist	6	0	6	0	0	0
Agronomist	5	0	5	0	1	0
Entomologist	11	0	11	0	1	0
Biologist	2	0	2	0	0	0
Horticulturist	7	0	7	0	0	0
Agricultural Journalist	2	0	2	0	0	0

Table 8-7 (continued)

State 4-H Club Leader	1	0	1	0	0	0
Agricultural Librarian	1	0	1	0	1	0
Agricultural College Administrator	4	0	4	0	0	0
Home Economics Extension Leader	1	0	1	0	0	0
Nutrition Specialist	1	0	1	0	0	0
Home Management Specialist	1	0	1	0	0	0
Clothing Specialist	1	0	1	0	0	0
County Agricultural Agent	3	0	3	0	0	0
Assistant Agent for Horticulture	1	0	1	0	0	0
4-H Club Agent	3	0	3	0	0	0
Home Economics Extension Agent	3	0	3	0	0	0
Home and Youth Agent	1	0	1	0	0	0
Crops Specialist	1	0	1	0	0	0
Associate County Agricultural Agent	1	0	1	0	0	0
Sub-Totals	164	0	201	0	47	0
Managerial Occupations						
Assistant Mosquito Control Superintendent	1	0	2	0	1	0
Mosquito Control Superintendent	1	0	1	0	0	0
Exterminating Service Manager	24	0	24	0	0	0
ASCS Executive Director	1	0	1	0	0	0
Artificial Insemination Service Manager	2	0	2	0	0	0
Construction Business Manager	3	0	3	0	0	0
ASCS County Office Manager	3	0	3	0	0	0
Farm Credit Manager	1	0	1	0	0	0
Director of Poultry and Animal Health	1	0	1	0	0	0
Director of Markets	1	0	1	0	0	0
Farm Placement Branch Manager	1	0	1	0	0	0
Sub-Totals	39	0	40	0	1	0

Table 8-7 (continued)

Supervisory Occupations						
Mosquito Control Supervisor	1	0	1	0	0	0
Sanitarian	1	11	2	25	1	16
Rural Electrification Supervisor	5	0	5	0	0	0
ASCS Operations Staff Assistant	1	0	1	0	0	0
ASCS Program Clerk Combination	3	0	3	0	0	0
Farm Credit Fieldman	3	0	4	0	1	0
Supervisor of Poultry Disease Control	1	0	1	0	0	0
Farm Placement Representative	2	1	2	1	1	0
Sub-Totals	17	12	19	26	3	16
Technical Occupations						
DHIA Supervisor	5	0	5	0	3	0
Artificial Inseminator	7	0	7	1	0	1
Laboratory Assistant	2	0	4	0	2	0
Seed Technologist	1	0	1	0	0	0
Feed, Fertilizer, and Lime Inspector	2	0	3	0	1	0
Poultry Inspector	4	0	8	0	4	0
Weights and Measures Inspector	6	0	8	0	2	0
Vegetable and Fruit Inspector	55	0	55	0	0	10
Soils Technician	1	0	1	0	1	0
Agricultural Engineering Technician	1	0	1	0	0	0
Field Crops Technician	1	0	1	0	0	0
Greenhouse Technician	1	0	1	0	0	0
Radio Aid	1	0	1	0	0	1
Poultry Laboratory Technician	1	0	1	0	0	0
Sub-Totals	88	0	97	1	13	12

Table 8-7 (continued)

Sales Occupations						
Real Estate and Insurance Agent	16	0	16	0	0	0
Insurance Agent	42	0	42	0	4	0
Real Estate Agent	2	0	3	0	1	0
Sub-Totals	60	0	61	0	5	0
Clerical Occupations						
ASCS Clerk	10	0	10	0	3	0
Sub-Totals	10	0	10	0	3	0
Skilled Occupations						
Property Appraiser	1	0	4	0	3	0
Rural Property Negotiator	7	0	12	0	5	0
Exterminating Service Serviceman	26	0	35	0	9	0
Farm Building Construction Carpenter	68	0	68	0	0	0
Sub-Totals	102	0	119	0	17	0
Semi-Skilled Occupations						
Exterminating Service Worker	17	0	26	0	9	0
ASCS Field Reporter	0	18	0	18	0	18
Sub-Totals	17	18	26	18	9	18
Totals	497	30	573	45	98	46

Table 8-8

ESTIMATED NUMBER OF PERSONS WHO NEED AGRICULTURAL COMPETENCIES, CURRENT, FIVE YEARS HENCE, AND TO BE HIRED DURING NEXT FIVE YEARS, IN THE FOOD MARKETING AND DISTRIBUTION OCCUPATIONAL FAMILY, BY LEVEL OF EMPLOYMENT AND OCCUPATIONAL TITLE
Delaware, 1964

Level of Employment / Occupational Titles	Current		Expected 5 Years Hence		Employees to be Hired During Next 5 Years	
	Full-time	Part-time	Full-time	Part-time	Full-time	Part-time
Managerial Occupations						
Wholesale Grocery Branch Manager	13	0	26	0	26	0
Wholesale Grocery Assistant Manager	13	0	13	0	0	0
Grocery Store Owner-Manager	183	0	183	0	14	0
Grocery Store General Manager	11	0	11	0	0	0
Grocery Store Assistant Manager	14	0	14	0	0	0
Grocery Store Manager	20	0	20	0	0	0
Meat Market Owner-Manager	34	0	34	0	0	0
Fruit and Vegetable Market Owner-Manager	18	0	18	0	0	0
Egg and Poultry Store Owner-Manager	7	0	7	0	0	0
Egg and Poultry Store Manager	7	0	7	0	0	0
Egg and Poultry Store Assistant Manager	7	0	7	0	0	0
Meat Market Manager	1	0	1	0	0	0
Fruit and Vegetable Broker	23	0	23	0	0	0
Wholesale Fruit and Vegetable Business General Manager	16	0	16	0	0	0

Table 8-8 (continued)

Dairy Store Owner-Manager	1	0	1	0	0	0
Wholesale Grocery General Manager	16	0	16	0	0	0
Sub-Totals	384	0	397	0	40	0
Supervisory Occupations						
Supermarket Manager	84	0	84	0	0	0
Assistant Supermarket Manager	84	0	84	0	33	0
Supermarket Meat Department Manager	84	0	84	0	63	0
Supermarket Produce Department Manager	73	0	73	0	32	0
Supermarket Dairy Department Head	51	0	51	0	0	0
Supermarket Produce Department Head	11	0	11	0	0	0
Supermarket Meat Department Head	11	0	11	0	0	0
Supermarket Fish and Poultry Department Head	11	0	11	0	0	0
Supermarket Frozen Food and Dairy Department Head	11	0	11	0	11	0
Supermarket Head Cashier	11	0	11	0	11	0
Supermarket Delicatessen Department Manager	22	0	22	0	11	0
Supermarket Dairy Department Manager	22	0	22	0	11	0
Supermarket Grocery Department Manager	11	0	11	0	11	0
Supermarket Front-End Manager	11	0	11	0	11	0
Wholesale Fruit and Vegetable Business Sales Manager	16	0	16	0	0	0
Wholesale Fruit and Vegetable Business Office Manager	16	0	16	0	0	0
Wholesale Grocery Sales Manager	16	0	16	0	0	0
Sub-Totals	545	0	545	0	194	0

Table 8-8 (continued)

Technical Occupations						
Wholesale Grocery Buyer	16	0	16	0	0	0
Sub-Totals	16	0	16	0	0	0
Sales Occupations						
Meat Market Clerk	1	1	1	1	0	0
Sub-Totals	1	1	1	1	0	0
Clerical Occupations						
Supermarket Clerk-Cashier	125	306	182	397	182	397
Sub-Totals	125	306	182	397	182	397
Skilled Occupations						
Meat Cutter	176	23	205	23	62	0
Sub-Totals	176	23	205	23	62	0
Semi-Skilled Occupations						
Supermarket Produce Clerk	23	11	23	11	11	11
Meat Wrapper	34	23	102	68	102	68
Fruit and Vegetable Market Helper	0	4	0	4	0	0
Sub-Totals	57	38	125	83	113	79
Totals	1304	368	1471	504	591	476